INTERESTING PLANTS OF OKLAHOMA

U. T. Waterfall

In the course of making collections in various parts of the state I have collected several plants which, either because they represent additions to the flora or have seldom been recorded, are of interest.

Aegilops cylindrica Host. I found a number of patches of this introduced grass in and around Oklahoma City during the spring of 1939.

In H. I. Featherly's *Grasses of Oklahoma*[1] it is listed as having been first collected from *Payne County* by Professor Robert Stratton of Oklahoma A. & M. College. Undoubtedly it is spreading rapidly in the state.

Iresine rhizomatosa Standley. The Oklahoma specimens that have been passing as *Iresine celosia*, or *I. paniculata*, should be referred to *I. rhizomatosa*.

The latter is the only species found in this region and, as its name indicates, has horizontal rootstocks running near the surface of the ground. The species to which it has formerly been referred is an annual,[2] but our plant is always a perennial.

Portulaca parvula A. Gray. Our specimens have been previously identified as *P. pilosa* which, according to Rydberg,[3] is tropical only.

Gray undoubtedly knew *P. pilosa* and intended his species to be distinct, but the two have been sadly confused since his time.

Ranunculus laxicaulis (T. & G.) Darby. Damp sandy clay, open woods, two miles southwest of Smithville, *McCurtain County*, No. 685. Collected in spring of 1937.

This is the filiform-stemmed *Ranunculus* that has been erroneously identified in the past as *Ranunculus oblongifolius*.[4] The only other record from Oklahoma of which I know is E. J. Palmer's no. 39,348 determined as *R. oblongifolius* Ell.

Ranunculus longirostris Godr. Growing in water, Yashaw Creek, 3½ miles south of Broken Bow, McCurtain County, No. 668. Collected in the spring of 1937.

[1] H. I. Featherly. Grasses of Oklahoma, Tech. Bull. No. 3, Okla. A. & M. College. Stillwater, Okla. (1938).

[2] J. K. Small, *Manual of Southeastern Flora* p. 477.

[3] P. A. Rydberg, *Flora of Prairies and Plains of Central North America* p. 314.

[4] M. L. Fernald in Rhodora **41**: 541 (1939).

This identification was qualified by the word "probably" by Miss Bernice Schubert of the Gray Herbarium, as the material was not in the best condition for identification. It is a white-flowered *Ranunculus* with floating stems and filiformly dissected leaves.

OENOTHERA GREGGII Gray, var. TYPICA Munz. Found in sandy clay soil on sandstone hillside, prairie, 3 miles south and 7 miles west of Clinton, *Custer County*, No. 1633, identified by P. A. Munz.

Most of the annual vegetation had already died by the time (August 12) this was collected. Growing nearby were such woody-rooted plants as *Oenothera missouriensis* Sims var. *incana* Gray and *Scutellaria resinosa* Torr. with an occasional rather dwarfed specimen of *Bumelia lanuginosa* (Michx.) Pers. I at first thought this to be new to the state as Munz[1] does not list it from Oklahoma.

An examination of the material at the herbarium of the University of Oklahoma shows another specimen collected since Munz's publication. Therefore this collection constitutes an extension of range within the state.

GAURA FILIFORMIS Small, var. TYPICA Munz. Growing in moist sand, waste field, 3 miles west of Luther, *Oklahoma County*, No. 1677. Identified by P. A. Munz.

Previously it has not been collected northwest of Arkansas and eastern Texas. My nos. 1779 and 1806, taken about three weeks later from approximately the same locality, match the above except that they are more mature and dry weather had caused many of the leaves to fall.

GAURA PARVIFLORA Dougl., var. TYPICA Munz, forma GLABRA Munz. Sandy clay soil, prairie, 3½ miles west and 2½ north of Oklahoma City, *Oklahoma County*, No. 1346. Identified by P. A. Munz.

Of several collections in this vicinity I have found only the one with glabrous hypanthium.

AMBROSIA APTERA IN OKLAHOMA.

While trying to identify certain specimens of the plant that we have been calling *A. trifida* great difficulty has been encountered.

[1] P. A. Munz in Am. Journ. Bot. **16**: 709 (1929).

Some of our Sooner State[1] specimens have the stems and pistillate involucres strikingly black-striate and all of them are more or less so.

Rydberg uses this character in his key[2] to set off *A. trifida* from his *A. striata* and *A. variabilis*, but descriptions of *A. aptera* DC. do not mention it. Our specimens all keyed to *A. striata* but because we were outside of its range as given by Rydberg I became dubious as to the identity of our plants.

Accordingly, with the kind cooperation of Dr. H. A. Gleason of the New York Botanical Garden, we obtained on loan the type specimens of Rydberg's *A. striata* and *A. variabilis*, together with abundant material of *A. trifida* and *A. aptera*.

It became immediately clear that our specimens were not referable to *A. striata* as the fruit of this species is narrow, being about three times as long as broad. Otherwise they are similar. Our specimens and those of the borrowed material of *A. trifida* and *A. aptera* all have fruit about twice as long as broad.

The specimens of typical *A. trifida* have no black-striate markings on the stems or pistillate involucres and usually have a softer, wider-spreading pubescence than *A. aptera*.

The latter species has stems and pistillate involucres that are more or less black-striate, and usually has a harsher, rather scabrous pubescence.

All our Oklahoma specimens of *Ambrosia* should therefore be referred to *A. aptera* which, as I see it, can be separated from *A. trifida* only as indicated above.

It is probable that a critical study of *A. aptera*, *A. striata*, and *A. variabilis* as they occur throughout North America will reveal the fact that they should all be reduced to varieties of *A. trifida* but I am unable to make such a study due to insufficient out-of-state material.[3]

TRAGOPOGON PRATENSIS L. Clay soil, Fairgrounds, Oklahoma City, *Oklahoma County*, No. 909. Several specimens were found in an open area about a block wide and two blocks long on the

[1] Oklahoma is called the "Sooner State" because many people began the run on April 18, 1889, before noon which was the official starting time, and thus got to the lands to be occupied by settlers sooner than those who waited ethically until noon.

[2] Rydberg, *Fl.* of *Pr.* and *Pl.*, p. 764, and in *Fl. N. Am.* xxxiii. pt. 1: 15–22 (1922).

[3] In my own work I am treating *Ambrosia aptera* as *A. trifida*, var. *texana* Scheele in Linnaea, xxii. 156 (1849) = *A. trifida*, var. *aptera* (DC.) Ktze., Rev. Gen. i. 305 (1891).—M. L. F.

southwest corner of the fairgrounds in the spring of 1939. Probably it has been recently introduced.

For aid in the preparation of the above notes I am deeply grateful to Professor Milton Hopkins.

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REHDER'S MANUAL—Every student of our flora, whether a technical botanist, an amateur or a horticulturist, has awaited with keen anticipation the second edition of Rehder's Manual.[1] The thousands of questions which have arisen since the first edition have been carefully weighed and the newly proposed species, varieties, forms and horticultural products evaluated. To the horticulturist the work will be invaluable; to the botanist indispensable. The varieties and forms of botanists are properly so designated but, to save space and not to oppose too strongly the horticulturist's love of trinomials, the abbreviations "var." and "f." are omitted before the varietal or formal names but entered after the publishing author. Thus, under *Betula papyrifera* Marsh. we get **"B. p. cordifòlia** (Reg.) Fern., var.", **"B. p. mínor** (Tuckerm.) Wats. & Coult., var.", etc., while the commonly cultivated cut-leaved Birch appears as **"B. péndula dalecárlica** (L.) Schneid., f.", this being a forma, not a geographic variety. The bibliographic detail has been very carefully worked out and there is hope that in the not distant future we may have this great mass of essential bibliographic matter for ready reference. Without it the user who wants to check the original publications is largely helpless. This need of the bibliography is, naturally, one experienced only by the technical worker. It is greatly to be hoped that Professor Rehder will be able to supplement the present great work by the bibliographic explanation of it. The book, compact, with no padding, and directly to the point, contains abundant keys and telling descriptions and shows every evidence of being up-to-date, even to the inclusion of new varieties and forms published within the last half-year. Every active student of the flora of temperate North America needs it.—M. L. F.

[1] ALFRED REHDER. Manual of Cultivated Trees and Shrubs Hardy in North America exclusive of the subtropical and warmer temperate Regions. Second Edition. xxx + 996 pp. New York. The Macmillan Company. 1940. $10.50.

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